

## Abstract

In a unipolar transversal flux machine, in particular a motor, having a rotor (12), which is comprised of two coaxial, ferromagnetic, toothed rotor rings (14, 15), and a permanent magnet ring (16), which is magnetized in an axially unipolar fashion and is clamped axially between these rotor rings (14, 15), and having a stator (11), which is concentric to the rotor shaft (13) and has U-shaped stator yokes (19) that represent the magnet poles, yoke elements (20), and a stator winding (21), in order to achieve an extremely flat design and to assure a definite start in a particular direction, the stator winding (21) is embodied with two coils (22, 23), whose one coil side (221, 231) extends respectively over a group of stator yokes (19) and yoke elements (20) arranged in succession in the circumference direction, along the side of the yoke elements (20) remote from the rotor shaft (13), between the yoke legs (19), where the group spanned by the coil side (221) of the one coil (22) is disposed spatially offset on the stator circumference and electrically offset by  $90^\circ$  in relation to the group spanned by the coil side (231) of the other coil (23) (Fig. 1).